

IN THE CLAIMS:

The below listing of claims will replace all prior versions and listings of claims in the application:

1-16. (Canceled)

17. (Currently Amended) A stent delivery system comprising:

a guide wire;

a delivery catheter having an inner tubular member with a proximal end and a distal end and a guide wire lumen extending from the proximal end to the distal end for receiving the guide wire, the tubular member including a region for mounting a compressed stent thereon with a tip assembly attached to the mounting region including a tip component having a tapered shape which facilitates the insertion and delivery of the delivery catheter in a patient's body vessel attached to the mounting region and an outer tubular member having a restraining sheath overlying a portion of said inner tubular member to maintain the stent in a compressed position, the outer tubular member and restraining sheath being adapted for axial movement with respect to said inner tubular member, the tip component being made from a polymeric material compounded with a radiopaque substance; and

a housing assembly having a pull-back handle slidably mounted on a base, said the inner tubular member having a proximal end attached to said the base and said the outer tubular member having a proximal end attached to said the pull-back handle, wherein movement of the pull-back handle proximally retracts said the restraining sheath proximally from the compressed stent on the inner tubular member while the inner tubular member remains stationary.

18. (Previously Presented) The stent delivery system of claim 17, further including means for evacuating air from the delivery catheter.

19. (Previously Presented) The stent delivery system of claim 17, wherein the tip component is made from poly-ether-block amide.

20. (Previously Presented) The stent delivery system of claim 17, wherein the tip component is made from poly-ether-block amide which contains BaSO₄.

21. (Previously Presented) The stent delivery system of claim 17, wherein the tip component includes a wire coil molded into the polymeric material.

22. (Previously Presented) The stent delivery system of claim 21, wherein the wire coil is molded into urethane material.

23. (Canceled)

24. (Currently Amended) The stent delivery system of claim 17, ~~further including wherein the~~ means for evacuating air from the delivery catheter includes a syringe which can be placed in fluid engagement with the guide wire lumen for introducing a fluid into the delivery catheter.

25. (Currently Amended) The stent delivery system of claim [24] 18 wherein an annular space is formed between the outer tubular member and the inner tubular member and the delivery catheter further comprising an opening in the inner tubular member which is in fluid communication with the annular space and the guide wire lumen, wherein fluid may be introduced into the guide wire lumen through the opening in the inner tubular member so that the fluid is introduced into annular space and eventually flows through the distal end of the outer tubular member and a distal opening formed on the tip assembly.

26. (Currently Amended) The stent delivery system of claim 17, wherein ~~the tip assembly includes a tip component having a tapered shape which facilitates the insertion and delivery of the delivery catheter in a patient's body vessel, the tip component being made from PEBAX.~~

27. (Previously Presented) The stent delivery system of claim 17, wherein the tip component is made from PEBAX which contains BaSO₄.

28. (Currently Amended) A stent delivery catheter comprising:
a guide wire;
an inner tubular member having a proximal end and a distal end and a lumen extending from the proximal end to the distal end for receiving [a] the guide wire and a region for mounting a compressed stent thereon;

a tip assembly attached to the inner tubular member including a tip component having a tapered shape attached distally to the mounting region and has the guide wire lumen extending therethrough which facilitates the insertion and delivery of the delivery catheter in a patient's body vessel ~~over the guide wire attached distally to the mounting region~~, the tip component being made from a polymeric material compounded with a radiopaque substance;

an outer tubular member adapted for axial movement with respect to the inner tubular member and including a restraining sheath overlying the stent mounting region formed on the inner tubular member; and

means for moving the outer tubular member relative to the inner member while maintaining the inner tubular member in a stationary position.

29 (New) A stent delivery system comprising:

a delivery catheter including an inner tubular member with a proximal end and a distal end and a distal region for mounting a stent in a collapsed position thereon and an outer tubular member having a restraining sheath overlying the distal region of the inner tubular member to maintain the stent in a collapsed position and forming an annular space between the outer tubular member and the inner tubular member, the outer tubular member and restraining sheath being adapted for axial movement with respect to said inner tubular member; and

a housing assembly having a pull-back handle slidably mounted on a base, the inner tubular member having a proximal end attached to the base and the outer tubular member having a proximal end attached to the pull-back handle so that movement of the pull-back handle proximally retracts the restraining sheath proximally from the collapsed stent on the inner tubular member while the inner tubular member remains stationary and the inner tubular member has a guide wire lumen extending from the proximal end to the distal end for receiving the guide wire, wherein the distal mounting region includes an opening formed therein which allows fluid to flow through the guide wire lumen into the annular space formed between the outer tubular member and the restraining sheath to evacuate air from the delivery catheter.

30. (New) The stent delivery system of claim 29, wherein the proximal end of the inner tubular member is adapted to receive a syringe for introducing a fluid into the delivery catheter.

31. (New) The stent delivery system of claim 29, further including a plurality of openings formed along the length of the inner tubular member which allows fluid to flow from the guide wire lumen into the annular space formed between the outer tubular member and the restraining sheath to evacuate air from the delivery catheter.

32. (New) The stent delivery system of claim 29, wherein distal mounting region includes a plurality of openings formed therein for allowing fluid to pass from the guide wire lumen to the annular space formed between the inner tubular member and the restraining sheath.

33. (New) The stent delivery system of claim 32, wherein the openings are formed as channels on the distal mounting region.